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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,775	09/17/2003	Naohide Maeda	Q77539	2955
23373	7590	06/28/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			NGUYEN, TRAN N	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/663,775

Applicant(s)

MAEDA ET AL.

Examiner

Tran N. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 2,4,6,8,10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,3,5,7 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***DETAILED OFFICE ACTION***

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claims 1, 3, 5, 7 and 9** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1 currently amended with the following: “**wherein the magnets** are arranged on both sides of the respective claw magnetic poles, and **are formed as trapezoidal plates which gradually increase in both width and thickness** toward a base side of the claw magnetic pole, such that said magnet’s center of gravity is located closer to the base of the said claw magnetic pole than an axial center of said claw magnetic pole” contains new subject matter.

The claimed language is written, and as further explained in the applicant’s remark (third paragraph of page 2), to set the limitations of the magnets so that **both the width and the thickness of the magnets gradually increase** toward base side, or the root side, of the claw magnetic pole. However, the specification (paragraph [0039] and [0043]) and the drawings of the application disclose that the **claw poles each with both the width and the thickness of the**

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magnets gradually increase toward base side, or the root side, thereof. Nowhere in the written specification and the drawings discloses that **the magnets are formed as trapezoidal plates that gradually increase in both width and thickness toward a base side of the claw magnetic pole**. If the applicant believes that the Examiner has overlook, please point out the exact area(s), i.e., page and line numbers in the specification that support the above currently amended claimed subject matter. Also, as additional pictorially explanation, the applicant seems to draw the claw pole with indications of length (L), width (w), and thickness (t), instead of the permanent magnets.

Further Note: the specification does discloses that the machine comprises **a plurality of magnetic assembly (25)** having plurality of magnet-holding members (24), and the magnets (23), wherein each **magnet assembly (25) is trapezoidal plate-shaped so as to gradually increase in thickness** (only the thickness of the magnet assembly, not both the thickness and the width) toward the base side in the circumferential direction. As shown in figs 7-8, the thickness of the whole magnet assembly increased toward the base side of the pole, but not the width of the magnet assembly. In fact, fig 5 particularly shows that the width is maintained uniform.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

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F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. **Claims 1, 3 and 5** rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claims 1 and 16 of U.S. Patent No. 6201335** (hereafter USP'335).

Although the conflicting claims are not identical, they are not patentably distinct from each other because both the present application and the USP'335 recited similar subject matter. Particularly, the limitations of the magnet assembly with the center of gravity thereof located close to the root side of the claw-like magnetic pole (as claimed in the USP '335) is read as the center of gravity of said magnet assembly located near (close) on the base part side (i.e., the root) of said claw magnetic poles (as recited in the USP'335 claim 16).

*Regarding the newly added limitations of the magnet assembly is trapezoidal plate shaped so as to gradually increase in both thickness and width toward the base side in the circumferential direction, fig 6 shows that the magnet assembly having the thickness (portion 41b) and width (portion 41a) gradually increased toward the base of the claw pole.* Those skilled in the art would understand that each rotor pole core having claw poles are configured as trapezoidal shape and the two rotor core claw poles are interlacing one another. Therefore, those skilled in the art would realize that the magnet assembly must configured with trapezoidal plate shaped so as to gradually increase in thickness toward the base side in the circumferential direction for the following reasons:

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(1) to ensure a snugly fit of the magnet assembly within the spacing regions between two adjacent trapezoidal-shaped claw poles;

(2) to securely hold the magnets provided on both sides of each claw-like magnetic pole, so that the magnets would not be displaced during the rotor rotation.

Thus, it would have been obvious to one skilled in the art to modify the USP'335 magnet assembly by configuring the trapezoidal plate shaped so as to gradually increase in thickness to ward the base side in the circumferential direction. Doing so would ensure a snugly fit of the magnet assembly within the spacing regions between two adjacent trapezoidal-shaped claw poles in order to securely hold the magnets provided on both sides of each claw-like magnetic pole.

Furthermore, the USP'335 shows the magnet assembly having trapezoidal plate shaped so as to gradually increase in thickness to ward the base side in the circumferential direction. This configuration obviously yields the center of gravity of said magnet assembly located near (close) on the base part side (i.e., the root) of said claw magnetic poles (as recited in the USP'335 claim 16). there is no apparent reason why the applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application, which matured into the USP'335.

**2. Claims 7 and 9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 16 of USP'335 and in view of York et al (US 6426581).**

Claims 1 and 16 of USP'335 claims similar invention as in the present invention, except for the limitations of the magnet-holding member extends to backside of the pole and is fitted to said claw magnetic poles, and magnet-holding members are joined together on said backside of the pole, and the magnets is located on the inner radial side of the claw poles.

York, however, teaches a claw pole rotor with these features (figs 1-4) for the purpose of enhance the abutment of the magnets thereof and having a simplified magnet retainer ring that is robust and that protects the magnets from becoming damaged or fragmented during operation of the rotor.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the USP'335 rotor by configuring the magnet holder and arrange the magnet



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so that magnet-holding members are joined together on said backside of the pole, and the magnets is located on the inner radial side of the claw poles, as taught by York. Doing so would enhance the abutment of the magnet assembly in the rotor.

### ***Conclusion***

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

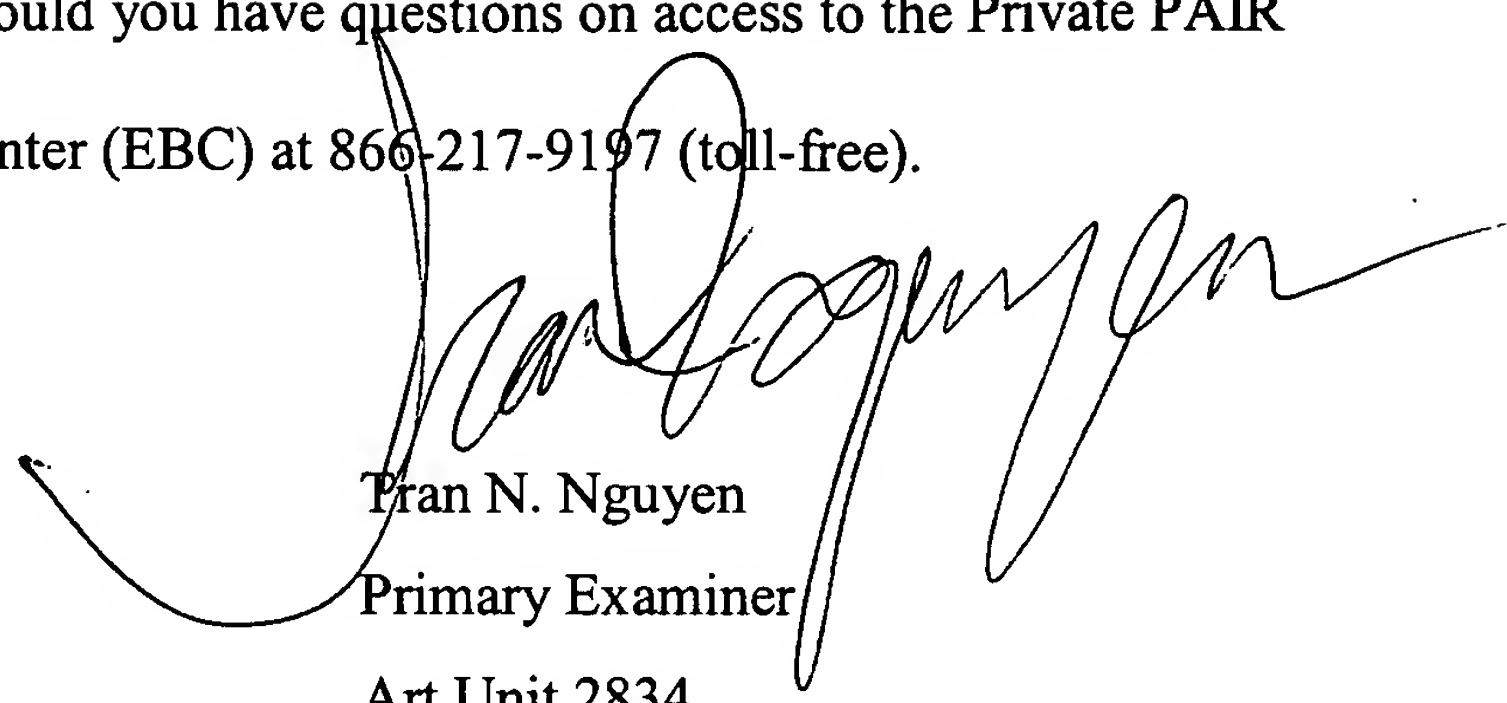
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tran N. Nguyen  
Primary Examiner  
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